

=====

Sequence Listing could not be accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=9; day=21; hr=13; min=5; sec=36; ms=7;]

=====

Reviewer Comments:

<120> Phycocyanin exprimierende Eukaryontenzelle

The above <120> response is not in English; for all U.S. applications, use English throughout.

<210> 1

<211> 191

<212> DNA

<213> synthetisch

The above <213> response is a sample of the non-English <213> responses throughout the submitted file. Very important: the only valid <213> responses are: the Genus species of the organism, "Artificial Sequence", or "Unknown". "Artificial Sequence" and "Unknown" require explanation in the <220>-<223> section; please clearly give the source of the genetic material. Same errors in Sequences 2-14.

Application No: 10597403 Version No: 1.0

Input Set:

Output Set:

Started: 2009-09-03 17:01:57.936
Finished: 2009-09-03 17:01:59.577
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 641 ms
Total Warnings: 14
Total Errors: 0
No. of SeqIDs Defined: 14
Actual SeqID Count: 14

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (2)
W 402	Undefined organism found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)

SEQUENCE LISTING

<110> Signalomics GmbH

<120> Phycocyanin exprimierende Eukaryontenzelle

<130> 46 402 K

<140> 10597403

<141> 2009-09-03

<150> PCT/EP2005/000663

<151> 2005-01-24

<150> EP 04001504.2

<151> 2004-01-23

<160> 14

<170> PatentIn version 3.3

<210> 1

<211> 191

<212> DNA

<213> synthetisch

<400> 1

aagcttccat ggaatctcga gacaccatca ccataccat taaggtatat aactctgtag 60

aaataaagag tatcatcttt caaacgcgga attgtcgcga tcaaatacgat atgtcttatg 120

cggccgctta cgaccgttaa cttgttctag attgggctag cgttgagatc tttagaaacg 180

tcgacgaatt c 191

<210> 2

<211> 191

<212> DNA

<213> synthetisch

<400> 2

aagctttcat gaaatctcga gacaccatca ccataccat taaggtatat aactctgtag 60

aaataaagag tatcatcttt caaacgcgga attgtcgcga tcaaatacgat atgtcttatg 120

cggccgctta cgaccgttaa cttgttctag attgggctag cgttgagatc tttagaaacg 180

tcgacgaatt c 191

<210> 3

<211> 173

<212> DNA

<213> synthetisch

<400> 3

aagcttccat ggaatctcga gataagggtat ataactctgt agaaataaag agtatcatct	60
ttcaaaccgc ggattgtcgc gatcaaatcg atatgtctta tgcggccgct tacgaccggt	120
aacttgttct agattgggct agcgttgaga tctttagaaa cgtcgacgaa ttc	173

<210> 4
 <211> 173
 <212> DNA
 <213> synthetisch

<400> 4	
aagctttcat gaaatctcga gataagggtat ataactctgt agaaataaag agtatcatct	60
ttcaaaccgc ggattgtcgc gatcaaatcg atatgtctta tgcggccgct tacgaccggt	120
aacttgttct agattgggct agcgttgaga tctttagaaa cgtcgacgaa ttc	173

<210> 5
 <211> 731
 <212> DNA
 <213> *S. cerevisiae* Y190

<400> 5	
gagctcatat ccttttgttg tttccgggtg tacaatatgg acttcctctt ttctggcaac	60
caaaccata catcgggatt cctataatac cttcgttggg ctccctaaca tgtaggtggc	120
ggaggggaga tatacaatag aacagatacc agacaagaca taatgggcta aacaagacta	180
caccaattac actgcctcat tgatgggtgg acataacgaa ctaatactgt agccctagac	240
ttgatagcca tcatcatatc gaagtttcac tacccttttt ccatttgcca tctattgaag	300
taataatagg cgcattgcaac ttcttttctt tttttttctt ttctctctcc cccgttgttg	360
tctcaccata tccgcaatga caaaaaaatg atggaagaca ctaaaggaaa aaattaacga	420
caaagacagc accaacagat gtcgttggtc cagagctgat gaggggtatc tcgaagcaca	480
cgaactttt tccttccttc attcacgcac actactctct aatgagcaac ggtatacggc	540
cttccttcca gttacttgaa tttgaaataa aaaaaagttt gctgtcttgc tatcaagtat	600
aaatagacct gcaattatta atcttttgtt tcctcgatcat tggtctcggt ccttttcttc	660
cttgtttctt tttctgcaca atatttcaag ctataccaag catacaatca actatctcat	720
atacaccatg g	731

<210> 6
 <211> 496
 <212> DNA
 <213> *Synechocystis* sp. PCC6803

<400> 6

tcatgaagac cccattgacc gaagctgttt ctaccgcaga ttctcaaggt agattcttgt	60
catctaccga attgcaaatt gctttcggta gattgagaca agcaaagtct ggtttgcaag	120
ctgctaaggc tttgaccgat aacgctcaat ctttggttaa tgggtctgct caagctgttt	180
acaacaagtt ccatacacc actcaaacc aaggtaacaa cttcgctgca gatcaaagag	240
gtaaggataa gtgtgctaga gatattgggt actacttgag aattgttacc tactgtttgg	300
ttgcagggtg tactgggtcca ttggatgaat acttgattgc tgggtattgat gaaattaaca	360
gaaccttcga tttgtctcca tcttggtacg ttgaagcatt gaagtacatt aaggcaaata	420
atgggtttatc tgggtgatgct agagatgaag caaactctta cttggattac gctattaacg	480
ctttgtctaa ctcgag	496

<210> 7
 <211> 826
 <212> DNA
 <213> *Synechocystis* sp. PCC6803

<400> 7

tcatgagtga accaaacttg aaccagctt acaccttga tcaagctatt gcaaacttgc	60
aacaaaccga agatgcttct gctagatact atgctgcttg gtggattggg agattcagag	120
ctgctcaacc agaaaccatt gctgctttgt tgggtgcttt ggaagatgaa accgatagat	180
caccagatgg tggttacca ttgagaagaa acgctgctaa ggctttgggt aaattgggtg	240
atagacaagt tgttccagct ttgattaagg ctttggaatg tgaagattac tacgttagag	300
aatctgctgc tcaagcattg gaagggttgg gtgatgctag agctatggct ccattgatgg	360
ctaagttgac cgggtggttg gctgctgctc aattgggtga aggtaagcca catttggtc	420
aaccatacga agctatcatt gaagcattgg gtactttgca agctgttgaa tctattggtt	480
tgattgaacc attcttgga catttctcac caaagggtca atacgtgct gctagagctt	540
tgttccaatt gaccggtgat aacagatacg gtgatttggt gattaccgct ttgggtggta	600
cagatttgca attgagaaga tcagctatga tggatttggg tgctactggg tacttaccag	660
gtgctcaagc tattgctaag gctttcgtg aaaactcttt gaagttgatt gctttgagag	720
atgtgtgggc taccataga caaagacaag catcttctga atctaaggct ttgtctccag	780
cttcaagaca aattttggaa ttgatggatt ctttggtgaa ctcgag	826

<210> 8

<211> 652
<212> DNA
<213> *Synechocystis* sp. PCC6803

<400> 8
ccatggaagg taactctgtt gttaccccag aaattgaaag attgattcaa gctgttgaaa 60

ccgcagattc tgetgctaag ttagttgggtg ctgttagagc tttggctgct accagatcac 120

cattggctgt tccacaattg accaccgttt tgagatacaa caaccaggt gctgctgttg 180

ctgcagttga tggtttgatt caaattgggtg atgctgctat gaccatttg ttggcaaaca 240

tggatggta caactacggt gctagagctt gggctactag agcttgctgct ggtattgggtg 300

atccaagagc tttggctttg ttgcaagaag ctgctttgac cgatttcgct ttgtctgtta 360

gaagagctgc tgctaagggt ttgggtttct tgagatggca atctttgcca caagaagaac 420

aagaaaccgt tcaaaaggct atttacgata ccttgattca agtttgtaaa gatccagaat 480

gggttgtag atacggtgct attgctgggt tggaaaactt ggctaagcaa gctcaacatt 540

acagacaacc attgaaggat ttcttgcaat ctttcgttga acaagaacca gaagctattg 600

ttggtgaaag aattttgtgg accttggaag acattgggtcc aattaactcg ag 652

<210> 9
<211> 730
<212> DNA
<213> *Synechocystis* sp. PCC6803

<400> 9
tcatgagtgt aaacttggct tcacaattga gagaaggtag taagaagtct cattctatgg 60

ctgaaaacgt tggtttcgtt aagtgtttct tgaagggtgt tgttgaaaag aactcttaca 120

gaaagttagt tggtaacttg tacttcgttt actctgctat ggaagaagaa atggctaagt 180

tcaaggatca tccaattttg tctcatatct acttcccaga attgaacaga aagcaatctt 240

tggaacaaga ttgcaattc tactacggtt caaactggag acaagaagtt aagatttctg 300

ctgctgggtc agcatacggt gatagagtta gacaagttgc tgctaccgct ccagaattgt 360

tggttgctca ttcttacacc agatacttgg gtgatttgct tgggtggtaa attttgaaga 420

agattgctca aaacgctatg aacttgcatt atgggtgtac tgctttctac gaatttgcag 480

atattgatga tgaaaaggct ttcaagaaca cctacagaca agctatgaac gatttgccaa 540

ttgatcaagc taccgctgaa agaattgttg atgaagcaaa cgatgctttc gctatgaaca 600

tgaagatgtt caacgaattg gaaggtaact tgattaaggc tattgggtatt atgggtttca 660

actctttgac cagaagaaga tcacaagggt ctaccgaagt tggtttggtt acctctgaag 720

gtaactcgag

730

<210> 10

<211> 754

<212> DNA

<213> *Synechocystis* sp. PCC6803

<400> 10

ccatggctgt taccgatttg tctttgacca actcttcttt gatgccaaacc ttgaacccaa	60
tgattcaaca attggctttg gctattgctg cttcttggca atctttgccca ttgaagccat	120
accaattgcc agaagatttg ggttacgttg aaggcagatt ggaagggtgaa aagttggtta	180
ttgaaaacag atgttaccaa accccacaat tcagaaagat gcatttgga ttggctaaag	240
ttggtaagggt tttggatatt ttgcattgtg ttatgttccc agaaccattg tacggtttgc	300
cattgttcgg ttgtgatatt gttgctggtc cagggtggtgt ttctgctgct attgcagatt	360
tgtctccaac ccaatcagat agacaattgc cagctgctta ccaaaagtct ttggctgaat	420
tgggtcaacc agaatttgaa caacaaagag aattgccacc ttggggtgaa attttctctg	480
aatactgttt gttcattaga ccatcaaacg ttaccgaaga agaaagattc gttcaaagag	540
ttgttgattt cttgcaaatt cattgtcatc aatctattgt tgctgaacca ttgtctgaag	600
ctcaaaacttt ggaacataga caagggtcaaa ttcattactg tcaacaacaa caaaagaacg	660
ataagaccag aagagttttg gaaaaggctt tcggtgaagc atgggctgaa agatacatgt	720
ctcaagtttt gttcgatgtt attcaaaact cgag	754

<210> 11

<211> 519

<212> DNA

<213> *Synechocystis* sp. PCC6803

<400> 11

atgttcgacg tattcactcg ggttgtttcc caagctgatg ctgcggcga gtacctctct	60
ggttctcagt tagatgcttt gagecgtacc gttgctgaag gcaacaaacg gattgattct	120
gttaaccgca tcaccggtaa tgcttccgct atcgtttcca acgctgctcg tgctttgttc	180
gttgaacagc cccaattaat ccaaccgggt ggaaacgect acaccagccg tcgtatggct	240
gcttgtttgc gtgacatgga aatcactctc cgctatgtta cctacgcaac cttcaccggc	300
gacgcttccg ttctagaaga tcgttgcttg aacggctctcc gtgaaaccta cgttgccttg	360
ggtgttcccg gtgcttccgt agctgctggc gttcaaaaaa tgaaagaagc tgccttgac	420

atcggttaacg atcccaatgg catcacccgt ggtgattgca gtgctatcgt tgctgaaatc 480

gctgggttact tegaccgcgc cgtgctgcc gtagcctag 519

<210> 12

<211> 172

<212> PRT

<213> synthetisch

<400> 12

Met Phe Asp Val Phe Thr Arg Val Val Ser Gln Ala Asp Ala Arg Gly
1 5 10 15

Glu Tyr Leu Ser Gly Ser Gln Leu Asp Ala Leu Ser Ala Thr Val Ala
20 25 30

Glu Gly Asn Lys Arg Ile Asp Ser Val Asn Arg Ile Thr Gly Asn Ala
35 40 45

Ser Ala Ile Val Ser Asn Ala Ala Arg Ala Leu Phe Val Glu Gln Pro
50 55 60

Gln Leu Ile Gln Pro Gly Gly Asn Ala Tyr Thr Ser Arg Arg Met Ala
65 70 75 80

Ala Cys Leu Arg Asp Met Glu Ile Ile Leu Arg Tyr Val Thr Tyr Ala
85 90 95

Thr Phe Thr Gly Asp Ala Ser Val Leu Glu Asp Arg Cys Leu Asn Gly
100 105 110

Leu Arg Glu Thr Tyr Val Ala Leu Gly Val Pro Gly Ala Ser Val Ala
115 120 125

Ala Gly Val Gln Lys Met Lys Glu Ala Ala Leu Asp Ile Val Asn Asp
130 135 140

Pro Asn Gly Ile Thr Arg Gly Asp Cys Ser Ala Ile Val Ala Glu Ile
145 150 155 160

Ala Gly Tyr Phe Asp Arg Ala Ala Ala Val Ala
165 170

<210> 13

<211> 10
<212> DNA
<213> synthetisch

<400> 13
actctgtaga 10

<210> 14
<211> 11874
<212> DNA
<213> synthetisch

<400> 14
tcgcgcgctt cggatgatgac ggtgaaaacc tctgacacat gcagctcccg gagacggtca 60
cagcttgtct gtaagcggat gccgggagca gacaagcccg tcagggcgcg tcagcgggtg 120
ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc 180
accacgcttt tcaattcaat tcatcatttt ttttttattc tttttttga tttcggtttc 240
tttgaaattt ttttgattcg gtaatctccg aacagaagga agaacgaagg aaggagcaca 300
gacttagatt ggtatatata cgcataatgta gtgttgaaga aacatgaaat tgcccagtat 360
tcttaacca actgcacaga acaaaaacct gcaggaaacg aagataaatc atgtcgaaag 420
ctacatataa ggaacgtgct gctactcatc ctagtctctg tgctgccaag ctatttaata 480
tcatgcacga aaagcaaaca aacttgtgtg cttcattgga tggtcgtacc accaaggaat 540
tactggagtt agttgaagca ttaggtccca aaatttggtt actaaaaaca catgtggata 600
tcttgactga tttttccatg gagggcacag ttaagccgct aaaggcatta tccgccaaagt 660
acaatttttt actcttcgaa gacagaaaat ttgctgacat tggtaataca gtcaaattgc 720
agtactctgc gggatgtatac agaatagcag aatgggcaga cattacgaat gcacacggtg 780
tggtggggccc aggtattgtt agcggtttga agcaggcggc agaagaagta acaaaggaac 840
ctagaggcct tttgatgtta gcagaattgt catgcaaggg ctccctatct actggagaat 900
atactaaggg tactgttgac attgcgaaga gcgacaaaga ttttgttatc ggctttattg 960
ctcaaagaga catgggtgga agagatgaag gttacgattg gttgattatg acaccggtg 1020
tgggttttaga tgacaaggga gacgcattgg gtcaacagta tagaaccgtg gatgatgtgg 1080
tctctacagg atctgacatt attattgttg gaagaggact atttgcaaag ggaagggatg 1140
ctaaggtaga gggatgaacgt tacagaaaag caggctggga agcatatttg agaagatgcg 1200
gccagcaaaa ctaaaaaact gtattataag taaatgcatg tatactaaac tcacaaatta 1260
gagcttcaat ttaattatat cagttattac cctgcggtgt gaaataccgc acagatgcgt 1320

aaggagaaaa	taccgcatca	ggaaattgta	aacgttaata	ttttgttaaa	attcgcgtta	1380
aatttttgtt	aatcagctc	attttttaac	caataggccg	aaatcggcaa	aatcccttat	1440
aatcaaaaag	aatagaccga	gatagggttg	agtgttggtc	cagtttgga	caagagtcca	1500
ctattaaaga	acgtggactc	caacgtcaaa	gggcgaaaaa	ccgtctatca	gggcgatggc	1560
ccactacgtg	aaccatcacc	ctaatacagt	tttttggggg	cgaggtgccg	taaagcacta	1620
aatcggaaac	ctaaagggag	ccccgattt	agagcttgac	ggggaagcc	ggcgaacgtg	1680
gcgagaaaag	aagggaagaa	agcgaaagga	gcgggcgcta	gggcgctggc	aagtgtagcg	1740
gtcacgctgc	gcgtaaccac	cacacccgcc	gcgcttaatg	cgcgctaca	gggcgcgtcg	1800
cgccattcgc	cattcaggct	gcgcaactgt	tgggaagggc	gatcggtgcg	ggcctcttcg	1860
ctattacgcc	agctggcgaa	gggggggatgt	gctgcaaggc	gattaagttg	ggtaacgcca	1920
gggttttccc	agtcacgacg	ttgtaaaacg	acggccagtg	aattgtaata	cgactcacta	1980
tagggcgaat	tggagctcat	atccttttgt	tgtttccggg	tgtacaatat	ggacttcctc	2040
ttttctggca	accaaaccga	tacatcgga	ttcctataat	accttcgttg	gtctccctaa	2100
catgtaggtg	gcggagggga	gatatacaat	agaacagata	ccagacaaga	cataatgggc	2160
taaacaagac	tacaccaatt	acactgcctc	attgatggtg	gtacataacg	aactaatact	2220
gtagccctag	acttgatagc	catcatcata	tcgaagtttc	actacccttt	ttccatttgc	2280
catctattga	agtaataata	ggcgcgatgca	acttcttttc	tttttttttc	ttttctctct	2340
cccccgttgt	tgtctcacca	tatccgcaat	gacaaaaaaa	tgatggaaga	cactaaagga	2400
aaaaattaac	gacaaagaca	gcaccaacag	atgtcgttgt	tccagagctg	atgaggggta	2460
tctcgaagca	cacgaaactt	tttccttcct	tcattcacgc	acactactct	ctaatagaca	2520
acggtatacg	gccttccttc	cagttacttg	aatttgaaat	aaaaaaaaag	ttgctgtctt	2580
gctatcaagt	ataaatagac	ctgcaattat	taatcttttg	tttcctcgtc	attgttctcg	2640
ttccctttct	tccttgtttc	tttttctgca	caatatttca	agctatacca	agcatacaat	2700
caactatctc	atatacacca	tggaaggtaa	ctctgttggt	acccagaaa	ttgaaagatt	2760
gattcaagct	gttgaaaccg	cagattctgc	tgctaagtta	gttggtgctg	ttagagcttt	2820
ggctgctacc	agatcaccat	tggtgttcc	acaattgacc	accgttttga	gatacaacaa	2880
cccagggtgt	gctgttgctg	cagttgatgg	tttgattcaa	attggtgatg	ctgctatgac	2940
ccatttggtg	gcaaacatgg	atggttacaa	ctacggtgct	agagcttggg	ctactagagc	3000

ttgtgctggt attggtgatc caagagcttt ggctttgttg caagaagctg ctttgaccga	3060
tttcgctttg tctgttagaa gagctgctgc taagggtttg ggtttcttga gatggcaatc	3120
tttgccacaa gaagaacaag aaaccgttca aaaggctatt tacgatacct tgattcaagt	3180
ttgtgaagat ccagaatggg ttgttagata cgggtctatt gctggtttg aaaacttggc	3240
taagcaagct caacattaca gacaaccatt gaaggatttc ttgcaatctt tcgttgaaca	3300
agaaccagaa gctattgttg gtgaaagaat tttgtggacc ttggaaaaca ttggtccaat	3360
taactcgaga taaggatat aactctgtag aaataaagag tatcatcttt caaaccgcgg	3420
atatcctttt gttgtttccg ggtgtacaat atggacttcc tcttttctgg caaccaaacc	3480
catacatcgg gattcctata ataccttctg tgggtctcct aacatgtagg tggcggaggg	3540
gagatatata atagaacaga taccagacaa gacataatgg gctaaacaag actacaccaa	3600
ttacactgcc tcattgatgg tggtagataa cgaactaata ctgtagccct agacttgata	3660
gccatcatca tatcgaagtt tcaactacct ttttccattt gccatctatt gaagtaataa	3720
taggcgcatg caacttcttt tctttttttt tcttttctct ctccccgtt gttgtctcac	3780
catatccgca atgacaaaaa aatgatggaa gacactaaag gaaaaaatta acgacaaaaga	3840
cagcaccaac agatgtcgtt gttccagagc tgatgagggg tatctcgaag cacacgaaac	3900
tttttccttc cttcattcac gcacactact ctctaagag caacggtata cggccttcct	3960
tccagttact tgaatttgaa ataaaaaaaa gtttgetgtc ttgctatcaa gtataaatag	4020
acctgcaatt attaatcttt tgtttcctcg tcattgttct cgttcccttt cttccttggt	4080
tctttttctg cacaatattt caagctatac caagcataca atcaactatc tcatatacac	4140
catggctgtt accgatttgt ctttgaccaa ctcttctttg atgccaacct tgaaccaat	4200
gattcaacaa ttggcttttg ctattgctgc ttcttgcaa tctttgccat tgaagccata	4260
ccaattgcca gaagatttg gttacgttga aggcagattg gaaggtgaaa agttggttat	4320
tgaaaacaga tgttaccaa cccacaaatt cagaaagatg catttggaat tggctaaagt	4380
tggtaagggg ttggatattt tgcatttgtt tatgttccca gaaccattgt acggtttgcc	4440
attgttcggg tgtgatattg ttgctgggtc aggtgggtgt tctgctgcta ttgcagattt	4500
gtctccaacc caatcagata gacaattgcc agctgettac caaaagtctt tggctgaatt	4560
gggtcaacca gaatttgaac aacaaagaga attgccacct tggggtgaaa ttttctctga	4620
atactgtttg ttcattagac catcaaactg taccgaagaa gaaagattcg ttcaaagagt	4680
tgttgatttc ttgcaaattc attgtcatca atctattgtt gctgaaccat tgtctgaagc	4740

tcaaactttg gaacatagac aaggtcaaat tcattactgt caacaacaac aaaagaacga	4800
taagaccaga agagttttgg aaaaggcttt cggatgaagca tgggctgaaa gatacatgtc	4860
tcaagttttg ttcatgttta ttcaaaactc gagataaggt atataactct gtagaaataa	4920
agagtatcat ctttcaaacc gcggattgtc gcgatcaaat cgatatgtct tatgcggccg	4980
catatccttt tgttgtttcc ggggtgtacaa tatggacttc ctcttttctg gcaaccaaac	5040
ccatacatcg ggattcctat aataccttcg ttggtctccc taacatgtag gtggcggagg	5100
ggagatatac aatagaacag ataccagaca agacataatg ggctaaacaa gactacacca	5160
attacactgc ctcatgtatg gtggtacata acgaactaat actgtagccc tagacttgat	5220
agccatcatc atatcgaagt ttcactaccc tttttccatt tgccatctat tgaagtaata	5280
ataggcgcat gcaacttctt ttcttttttt ttcttttctc tctccccgt tgttgtctca	5340
ccatatccgc aatgacaaaa aaatgatgga agacactaaa ggaaaaaatt aacgacaaag	5400
acagcaccaa cagatgtcgt tgttcagag ctgatgagg gtatctcgaa gcacacgaaa	5460
ctttttcctt ccttcattca cgcacactac tctctaata gcaacggtat acggccttcc	5520
ttccagttac ttgaatttga aataaaaaaa agtttgctgt cttgctatca agtataaata	5580
gacctgcaat tattaatctt ttgtttctc gtcattgttc tcgttccctt tcttccttgt	5640
ttctttttct gcacaatatt tcaagctata ccaagcatat aatcaactat ctcatatata	5700
ccatgagtga accaaacttg aaccagctt acaccttga tcaagctatt gcaaacttgc	5760
aacaaaccga agatgcttct gctagatact atgctgcttg gtggattggg agattcagag	5820
ctgctcaacc agaaaccatt gctgctttgt tggttgcttt ggaagatgaa accgatagat	5880
caccagatgg tggttacca ttgagaagaa acgctgctaa ggctttgggt aaattgggtg	5940